

# The Art of TradeStation

## Strategy Development and Back-testing without Programming

Presented by

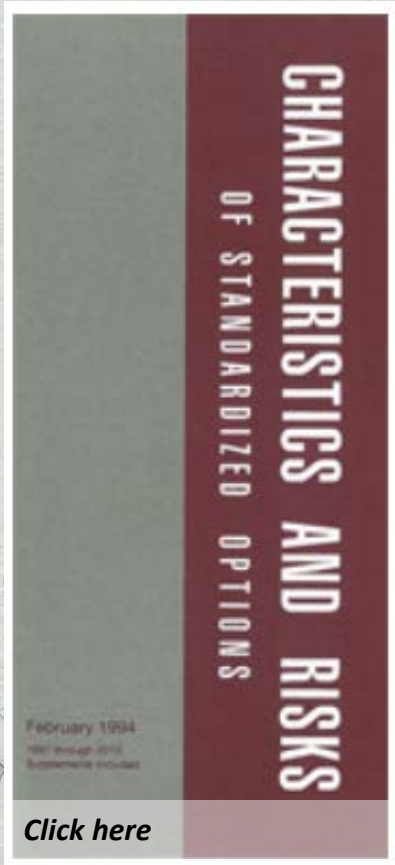
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V.P. Client Training and Education, TradeStation Group





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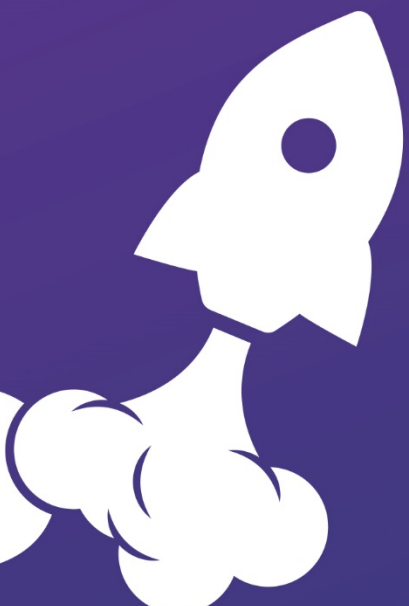
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# Agenda

- **What Is Strategy Trading?**
- **Building Strategies without Programming**
- **Key Performance Measures**
- **Optimization Basics**

# What Is Strategy Trading?

- A historically tested set of rules for entering and exiting the markets
- Rules based on technical indicators and patterns
- Trades can be placed manually or automated
- Time or activity-based price charts
- Trades only one symbol in the chart



# Benefits of Strategy Trading

- Can help reduce emotional trading decisions
- Non-discretionary approach to trading – Trading Plan
- Realistic expectations for potential profits
- Highlights the potential risks
- Helps you understand the relationships between price action and technical indicators and patterns

# Strategy Trading Building Blocks

**Buy(LE) (Long Entry) – Enter or add to a long position**

**Sell Short(SE) (Short Entry) – Enter or add to a short position**

*Note: Buy and Sell Short can reverse an existing position*

**Sell(LX) (Long Exit) – Exit a long position / No entry**

**Buy To Cover(SX) (Short Exit) – Exit a short position / No entry**



# The Strategy Development Process

Think of developing a strategy like any other scientific experiment

- First - we need to visualize the data and the technical indicator tools
- Second - we make observations on how the indicator behavior matches up with the market data
- Third - we create entry and exit rules based on our observations
- Forth - we measure performance, risk, and tradability
- Fifth - we experiment by optimizing the indicator parameters, looking at new combinations of indicators for entries and exits, and even changing the charting environment
- Sixth - we monitor our strategy with real-time data to verify actual performance matches with historical performance
- Start trading





# Built-In Strategy Components

- **Pre-built strategies based on popular indicators**
- **Each component takes one trading action**
- **Must have a minimum of 2 components, either an entry and Exit or a long-short reverse**



Strategy Components

TradingApp Store Subscriptions

| Name                                                                                                 | Status | Buy | Sell | Short | Cover |
|------------------------------------------------------------------------------------------------------|--------|-----|------|-------|-------|
|  Keltner Channel LE | Ready  | ✓   |      |       |       |
|  Keltner Channel SE | Ready  |     |      | ✓     |       |
|  Key Reversal LE    | Ready  | ✓   |      |       |       |
|  Key Reversal LX    | Ready  |     | ✓    |       |       |
|  Key Reversal SE    | Ready  |     |      | ✓     |       |
|  Key Reversal SX    | Ready  |     |      |       | ✓     |
|  MACD LE            | Ready  | ✓   |      |       |       |
|  MACD SE            | Ready  |     |      | ✓     |       |
|  Momentum LE        | Ready  | ✓   |      |       |       |
|  Momentum SE        | Ready  |     |      | ✓     |       |
|  MovAvg Cross LE    | Ready  | ✓   |      |       |       |
|  MovAvg Cross LX    | Ready  |     | ✓    |       |       |
|  MovAvg Cross SE    | Ready  |     |      | ✓     |       |

Definition

Edit EasyLanguage...

 Import

☒ Prompt for Editing

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Titles and definitions are intended to give a general idea of a trading concept or analysis tool. No particular security, group of securities, industry segment, analysis interval, idea, approach, strategy or setting is being recommended to you or in any manner endorsed by TradeStation Securities or any of its affiliates. Solely you are responsible for the results of the trading approach or strategy that you design or use.

OK

Cancel

Help



- Studies
- Strategies

|                                                                                   | Name    | Input Values | Status | Buy | Sell | Sell Short | Buy to Cover |
|-----------------------------------------------------------------------------------|---------|--------------|--------|-----|------|------------|--------------|
|  | MACD LE | 12,26,9      | On     | On  |      |            |              |
|  | MACD SE | 12,26,9      | On     |     |      | On         |              |

- Customize...
- Properties for All...
- Status
- Move Up
- Move Down
- Edit EasyLanguage
- Remove

Automation: \_\_\_\_\_

☐ Generate strategy orders for display in TradeManager's Strategy Orders tab

☐ Automate execution using \_\_\_\_\_ account with confirmation On



- Inputs
- Entries
- Exits
- Calculation

| Name       | Value |
|------------|-------|
| FastLength | 12    |
| SlowLength | 26    |
| MACDLength | 9     |

Dictionary...Optimize...Set Default

OKCancelHelp

Studies

Strategies

|                                                                                   | Name                | Input Values | Status | Buy  | Sell | Sell Short | Buy to open |
|-----------------------------------------------------------------------------------|---------------------|--------------|--------|------|------|------------|-------------|
|  | MACD LE             | 12,26,9      | On     | On ▾ |      |            |             |
|  | MACD SE             | 12,26,9      | On     |      |      | On ▾       |             |
|  | Percent Trailing LX | 1,20,false   | Off    |      | On ▾ |            | On ▾        |
|  | Percent Trailing SX | 1,20,false   | Off    |      | On ▾ |            | On ▾        |
|  | TimeExit (Bars) LX  | 10           | Off    |      | On ▾ |            |             |
|  | TimeExit (Bars) SX  | 10           | Off    |      |      |            | On ▾        |

Customize...

Properties for All...

Status

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Automation:

☐ Generate strategy orders for display in TradeManager's Strategy Orders tab

☐ Automate execution using 

61390713

 account with confirmation 

On ▾

Save Study Group...

OK

Help



General

Backtesting

Automation

## Currency

Base currency of:

Symbol (USD)

## Costs/Capitalization

Commission:

\$ per Trade

\$

0

0

%

Position Slippage:

\$

0

☒ per Trade☐ per Share/Contract

Initial Capital:

\$

100,000

Interest Rate:

2

%

Note: Initial Capital and Interest Rate are used only in the Strategy Performance Report.

## Position limits (for pyramiding strategies only)

☐ Allow up to 50 entry orders in the same

direction as the currently held position:

☐ when the order is generated by a different entry order☒ regardless of the entry that generated the order

Maximum shares/contracts/units per position

65,000

## Back-testing resolution

☐ Use Look-Inside-Bar Back-testing☐ Tick

1

ticks

☐ Second

1

second

☒ Minute

1

minute

☐ Daily

Maximum number of bars study will reference

50

## Trade size (if not specified by strategy)

☒ Fixed Shares/Contracts/Units

100

☐ USD per trade

\$

10,000

Round down to nearest

100

shares/contracts/units

Minimum number shares/contracts/units:

100

# Strategy Best Practices

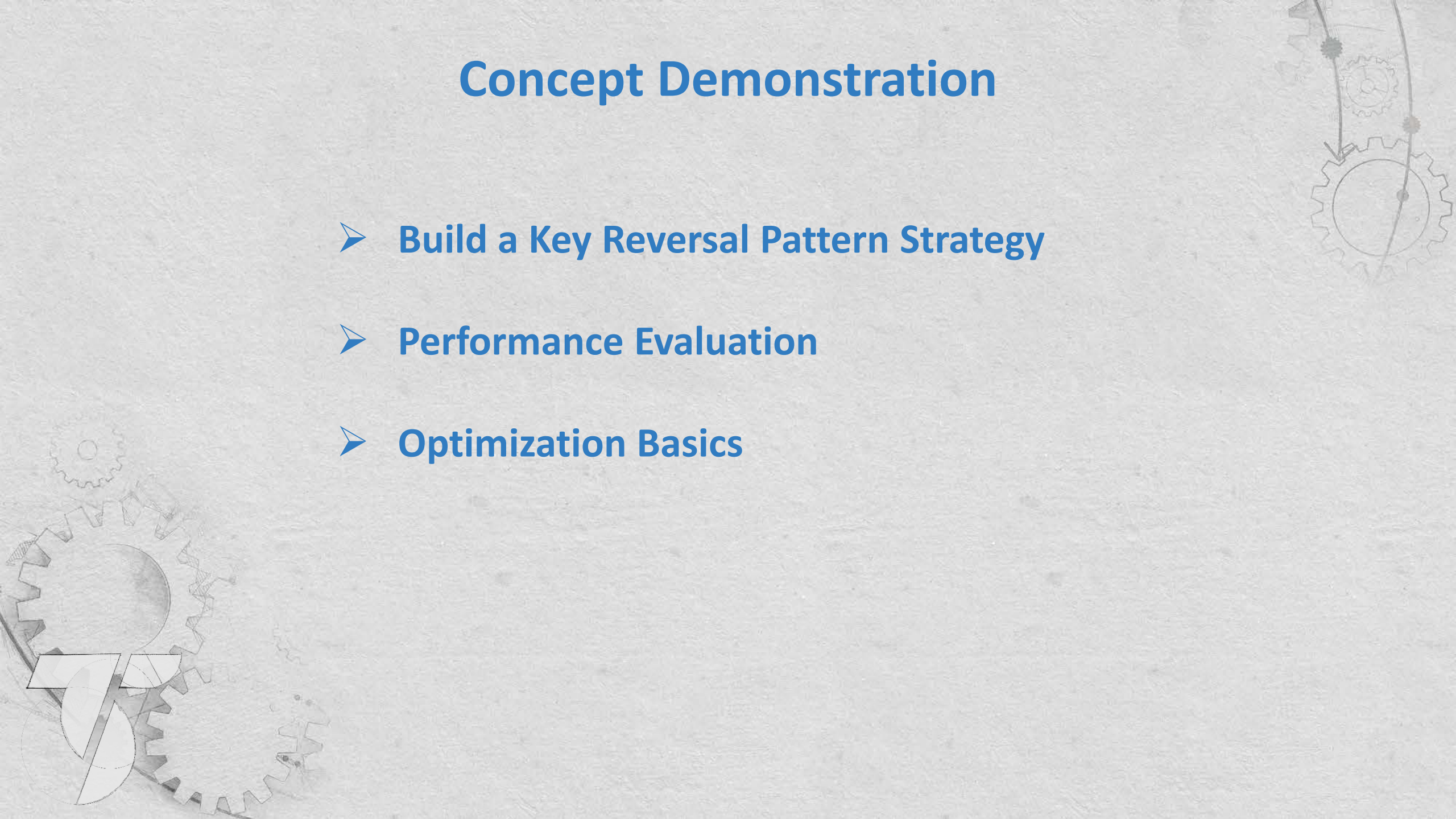
**Always have the same strategy indicators that the strategy is based on applied to the chart in order to verify the entry and exit rules are occurring in the correct places**

**Add the 'Strategy Equity' indicator to the chart to view the profit and loss equity curve historically in the chart**



# Concept Demonstration

- **Build a Key Reversal Pattern Strategy**
- **Performance Evaluation**
- **Optimization Basics**



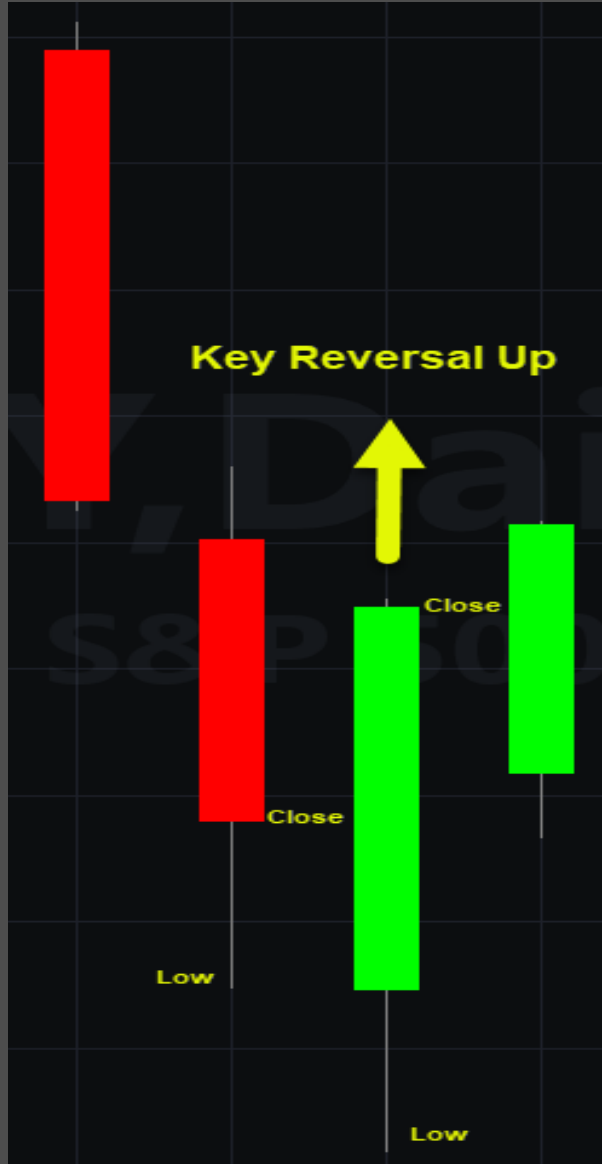
# Key Reversal

A key reversal is a simple bar pattern that may help signal the reversal of a trend and become a key support or resistance level.

In an uptrend, prices hit a new higher high and then close lower than the previous bar close both on the same bar. (Key Rev Down)

In a downtrend, prices hit a new lower low, and then close higher than the previous bar close both on the same bar. (Key Rev Up)





# Things You Need to Know

- **How the Strategy calculation engine Works in TradeStation charting**
- **Performance Evaluation Metrics**
- **Optimization Best Practices**
- **EasyLanguage**



# Thank You For Watching

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**<https://www.youcantrade.com/courses/master-class-strategy-trading/>**

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